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AMSAT NEWS SERVICE
ANS-254

ANS is a free, weekly, news and information service of AMSAT North America, The
Radio Amateur Satellite Corporation. ANS reports on the activities of a worldwide group of Amateur Radio operators who share an active interest in designing, building, launching and communicating through analog and digital Amateur Radio satellites.

Please send any amateur satellite news or reports to:

ans-editor@amsat.org

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SB SAT @ AMSAT $ANS-254.01
Final Call for AMSAT-NA Board of Directors Ballots

AMSAT News Service Bulletin 254.01
  From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
BID: $ANS-254.01

Ballots for the AMSAT-North America 2011 Board of Directors election have been mailed to all members. To have your vote count you must return your ballot by mail to:

AMSAT-NA
850 Sligo Ave #600
Silver Spring, MD, 20910

Ballots must arrive at the AMSAT Office by the close of business, September 15, 2011.

Four director's terms expire this year:

Barry Baines, WD4ASW
Alan Biddle, WA4SCA
Drew Glasbrenner, KO4MA
Tony Monteiro, AA2TX

Seven nominations have been received for the open seats. Listed alphabetically they are:

Barry Baines, WD4ASW
Alan Biddle, WA4SCA
Steve Coy, K8UD

Drew Glasbrenner, KO4MA
Mark Hammond, N8MH
Tony Monteiro, AA2TX
Patrick E. Stoddard, WD9EWK

Select no more than four candidates on your ballot. The four candidates receiving the highest number of votes will be seated as full Board members for two year terms. The two candidates receiving the next highest number of votes will be seated as alternate Board members for one year terms.

[ANS thanks the AMSAT Office the above information]

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SB SAT @ AMSAT $ANS-254.02
Registration Open for 2011 AMSAT Space Symposium 4-6 November 2011

AMSAT News Service Bulletin 254.02
  From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
BID: $ANS-254.02

AMSAT announces the 2011 AMSAT Space Symposium will be held on Friday, November 4th through Sunday, November 6th in San Jose, CA. Our annual gathering will feature:

+ Space Symposium with Amateur Satellite Presentations
+ Operating Techniques, News, & Plans from the Amateur Satellite World
+ Board of Directors Meeting open to AMSAT members (Nov. 3-4)
+ Meet Board Members and Officers
+ Annual General Membership Meeting
+ Annual Banquet-Keynote Speaker and Door Prizes

The 2011 Symposium hotel and registration web pages are now available on the AMSAT web site. You may register for the Symposium and Annual Banquet at the AMSAT Store:
http://www.amsat-na.com/store/SymposiumReg.php

Visit the Symposium and Annual General Meeting web page for details and the latest information:
http://www.amsat.org/amsat-new/symposium/2011/index.php

Symposium Registration including a copy of the Proceedings is:
+ $45 per person until September 19, 2011
+ $50 per person starting September 20, 2011
+ $55 per person at the door

The Saturday evening banquet is $45 per person. The Sunday morning Area Coordinator's Breakfast is $15 per person.

The hotel selected is the Wyndham San Jose, close to the airport. The AMSAT discount rate is $79.00+taxes per night. The reservation block code when calling the hotel directly is "AMSAT". The hotel telephone number is 408-453-6200. If you are making reservations on-line use 1031FSJAM for the group code. The direct link to the hotel web page is: http://www.wyndham.com/hotels/SJCAP/main.wnt

If you are planning to book a room on dates other than November 2, 3, 4, 5, you will have to call the hotel directly and ask for *in-house reservations*. You can get the $79 rate 3 days before and 3 days after the above dates but you cannot book the room on their

website. Any problems, give Martha a call at the AMSAT Office:
301-589-6062.

[ANS thanks the 2011 Symposium Committee for the above information]

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SB SAT @ AMSAT $ANS-254.03
STRaND-1 Frequency Coordinated

AMSAT News Service Bulletin 254.03
  From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
BID: $ANS-254.03

The IARU Satellite Frequency Coordination Panel has recently agreed a frequency of 437.575 MHz for the UK CubeSat STRaND-1. It will carry a Smartphone and plans to have a UOSAT style speech synthesiser and a 9600 or 19200 bps AX.25 packet downlink.

STRaND-1 is a 3U CubeSat measuring 30 by 10 by 10 cm and weighing 4 kg. Unlike previous CubeSats it will feature full 3-axis control with the attitude an orbit control system comprising a nano-magnetorquer, nano-reaction wheels, GPS receiver, 8 pulse plasma thrusters and a butane thruster.

A six page article on STRaND-1 appeared in the Spring issue of OSCAR News available at http://www.uk.amsat.org/on_193_final.pdf

The video of the presentation on the STRaND-1 Smartphone CubeSat given by Shaun Kenyon to the AMSAT-UK Colloquium is at
http://www.batc.tv/vod/Strand.flv

The PDF of the PowerPoint slides is at
http://www.uk.amsat.org/wp-content/uploads/colloquium%202011/AMSAT-UK-STRaND-Presentation.pdf

AMSAT-UK: http://www.uk.amsat.org/

[ANS thanks Trevor, M5AKA, for the above information]

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SB SAT @ AMSAT $ANS-254.04
Louis Varney G5RV Cup

AMSAT News Service Bulletin 254.04
  From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
BID: $ANS-254.04

The Louis Varney G5RV Cup for Space Communications has been awarded to Paul Robinson 2E1EUB by RSGB president Dave Wilson M00BW.

The cup is awarded for advances in space communication and the presentation took place at the Telford Hamfest on Sunday, September 4.

Paul was nominated by AMSAT-UK for his work promoting and encouraging the use of amateur radio satellites and perfecting the art

of a portable ground station.

Paul comments that he is privileged to have his call sign and name on the cup alongside some very famous call signs, some of which are no longer with us, he would like to thank AMSAT-UK and the RSGB for this award.

AMSAT-UK publishes a colour A4 newsletter, OSCAR News, which is full of Amateur Satellite information. A sample edition can be seen at: http://www.uk.amsat.org/on_193_final.pdf

Join online at http://tinyurl.com/JoinAMSAT-UK

http://www.uk.amsat.org/2011/09/05/louis-varney-g5rv-cup/

Paul is well known for his mobile 2M1EUB satellite operations in Interesting and wild locations such on an island off the Scottish Coast. Photos and additional information about Paul's rover and solar-powered station set-up can be seen on the 2E1EUB look up results on QRZ.com

[ANS thanks AMSAT-UK and RSGB for the above information]

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SB SAT @ AMSAT $ANS-254.05
KiwiSAT Students Win Grant

AMSAT News Service Bulletin 254.05
  From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
BID: $ANS-254.05

Massey University engineering students have been awarded a grant to work on software for the Amateur Radio satellite KiwiSAT.

Scoop reports that:

Four fourth-year honours students and a Masters student from the School of Engineering and Advanced Technology at the Albany campus have been awarded a $7,500 grant from the New Zealand Association of Radio Transmitters' Radio Science Education Trust to develop the software. The micro satellite is the size of a basketball and will be launched from a Russian rocket in the northern hemisphere when the project is finished.

KiwiSAT is being designed and built by a team of volunteers from New Zealand Radio Amateurs supported by Massey and various corporate sponsors. It will connect with amateur radio stations globally and will carry out experimental work in small satellite Attitude Determination and Control (ADAC) - a low cost control system that works through interaction with the Earth's magnetic field to position the satellite at a specific attitude.

Read the full story at
http://www.scoop.co.nz/stories/ED1108/S00164/
massey-students-create-space-satellite-software.htm

KiwiSAT - Taking New Zealand into Space
http://www.kiwisat.org/

[ANS thanks Southgate ARC news site for the above information]

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SB SAT @ AMSAT $ANS-254.06
OSCAR-11 Report 01 September 2011

AMSAT News Service Bulletin 254.06
  From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
BID: $ANS-254.06

This report covers the period from 27 April to 01 September 2011. The satellite has continued to operate in a very predictable way since the last report, and no changes have been observed. During this time the satellite has been heard reliably during its ten-day transmission periods. Excellent signals have been reported from stations located around the world, and good copy obtained from decoded telemetry frames.

The easiest way to check whether OSCAR-11 is operational is to look at the General Satellite Status website http://oscar.dcarr.org/index.php . You can also calculate the operating schedule from the last switch-off time, which was 26 August 2011 at 08:00 UTC (approx), using 10.35 days off followed by 10.35 days on.

Reception reports have been received from David VE3SB, Jerry WB5LHD, Toby MM0TOB, Colin VK5HI and Lee M0HOK. Many thanks to all and those who posted to the status website.

Although eclipses occur during every orbit, the evening passes over the UK were mostly clear of eclipses, owing to the longer hours of daylight during the Summer months. This resulted in stronger signals during the evening passes. However, as winter approaches eclipses will now start to affect the evening passes.

The on-board clock continues to gain, 26 seconds during the current reporting period, and 83 seconds since regular transmissions started at the end of August 2010. There is however a large accumulated error of 308.54339 days slow. This was caused mainly by the clock stopping during eclipses, when there was also an unknown drain on the power supply. The units of the least significant digit correspond approximately to seconds (0.86 seconds actually).

The VHF beacon frequency is 145.826 MHz. AFSK FM ASCII Telemetry. The satellite is operating in the default mode, with a cycle time of 20.7 days. 10.35 days on followed by 10.35 days off.

At the present time, while OSCAR-11 is operating in a predictable way, I no longer need direct reports or files by e-mail. However, could all listeners continue to enter their reports on the general satellite status website. This is a very convenient and easy to use facility, which shows the current status of all the amateur satellites, and is of use to everyone. Reports around the expected times of switch-on and switch-off are of special interest, especially for times 12:00 - 17:00 and 22:00 - 07:00 UTC, when the satellite is out-of-range in the UK . The URL is http://oscar.dcarr.org/index.php

A longer version of this report report is available on my website, and new listeners to OSCAR-11 should read this for further information. The URL is www.g3cwv.co.uk/oscar11.htm This page contains a links to the longer report, a short audio clip to help you identify the satellite and a file of the last telemetry received. The website also contains an archive of news & telemetry data which is updated from time to time, and details about using a soundcard or hardware demodulators for data capture. There is also software for capturing data, and decoding ASCII telemetry.

If you place this bulletin on a terrestrial packet network, please use the bulletin identifier $BID:U2RPT156.CWV, to prevent duplication.

73 Clive G3CWV xxxxx@amsat.org (please replace the x's by g3cwv)

[ANS thanks Clive, G2CWV, for the above information]

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SB SAT @ AMSAT $ANS-254.07
5.7 Metric Ton Satellite Uncontrolled Re-Entry Expected Soon

AMSAT News Service Bulletin 254.07
  From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
BID: $ANS-254.07

Leonard David reported in his September 7 Space Insider Column on Space.com, "Huge Defunct Satellite to Plunge to Earth Soon, NASA Says".

He wrote, "The huge Upper Atmosphere Research Satellite (UARS) is expected to re-enter Earth's atmosphere in an uncontrolled fall in late September or early October. Much of the spacecraft is expected to burn up during re-entry, but some pieces are expected to make it intact to the ground, NASA officials said."

He further reported that NASA computer analysis showed that about 150 component types, including the parent body of the satellite, will demise during re-entry, and 12 types (26 counting multiple components) would endure the fiery fall to Earth. The analysis indicated a surviving mass of 1,170 pounds (532 kilograms) falling within a debris footprint length of some 500 miles (800 kilometers).

The satellite is 35 feet long, 15 feet in diameter, and weighs 5.7 metric tons. It's operational orbit was at 375 miles inclined at 57 degrees to the equator.

"The risk to public safety or property is extremely small, and safe-ty is NASA's top priority," noted a NASA website dedicated to the re-entry. There is a chance that pieces of debris from the satellite will crash in areas accessible to the public.

According to NASA, on UARS re-entry day, "if you find something you think may be a piece of UARS, do not touch it. Contact a local law enforcement official for assistance."

As of September 7 a NASA statement read, "It is too early to say

exactly when UARS will re-enter and what geographic area may be
affected, but NASA is watching the satellite closely and will keep
you informed."

The full story was published on September 7 on the Space.com site:
http://www.space.com/12859-nasa-satellite-falling-space-debris-uars.html

[ANS thanks Space.com for the above information]

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SB SAT @ AMSAT $ANS-254.08
Satellite Shorts From All Over

AMSAT News Service Bulletin 254.08
  From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
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+ Episode 16 of the internet TV show Ham Nation is available for down
   load at http://twit.tv/show/ham-nation/16. This week's show features
   Steve Bible, N7HPR talking about AMSAT & ARISsat-1 along with many
   other interesting ham radio topics.

+ Trevor, M5AKA forwarded a link from the BBC with news that the
   United Kingdom's first satellite launched on a UK built rocket
   40 years ago will attempt to be reactivated. The Prospero space
   craft was launched by a Black Arrow rocket on October 28, 1971
   from Launch Area 5B, Woomera. It operated on 137.560 MHz.
   Full story and pictures at
   http://www.bbc.co.uk/news/science-environment-14783135
   Additional information on the AMSAT-UK website:
   http://tinyurl.com/3dny3s4
   Web based tracking for Prospero: http://www.n2yo.com/?s=5580
   and at: http://www.vk3ukf.com/Space/GadgetSatProspero.htm

+ Congratulations to Rodney, KC0ZHF for earning his VUCC endorsement
   for grids 100-250.

+ The AO-27 website is temporarily down. The Java scheduler app will
   always be accurate to within 2 minutes (the cumulative error in the
   satellite's clock) as long as a new schedule hasn't been uploaded
   to the bird itself. While the latest files for the AO-27 schedule
   are on the webpage, the required data files for the Java app until
   the website is back up, have been placed on the Java scheduler down-
   load page http://sites.google.com/site/ao27satellitescheduler
   (George, KA3HSW)

+ An article regarding getting the FUNcube Dongle to run under linux
   can be found at: http://webshed.org/wiki/FUNcube-Dongle-Linux

+ NASA is giving the public the power to journey through the solar
   system using a new interactive Web-based tool. The "Eyes on the
   Solar System" interface combines video game technology and NASA
   data to create an environment for users to ride along with agency
   spacecraft and explore the cosmos. Screen graphics and information
   such as planet locations and spacecraft maneuvers use actual space
   mission data. Begin your ride at: http://solarsystem.nasa.gov/eyes/

+ The Summer 2011 TAPR Packet Status Register newsletter is now
   available at http://www.tapr.org/psr

+ A.R.I. DX Bulletin No 1061 posted that Eric, KV1J and Jack, KV1E
will be active as FP/KV1J and FP/KV1E from Miquelon Island (NA-032)
from 25 October to 1 November. Plans are to operate SSB and RTTY,
with some CW and PSK31, on 160-10 metres, plus 6m "if indications
of openings". FP/KV1J will take part in the CQ WW DX SSB Contest
(SOAB HP). QSL via home calls, direct or bureau, and LoTW, Informa-
tion on satellite activity and and other details can be found at:
http://www.kv1j.com/fp/october11.html AO-51 (if available), AO-27,
SO-50, SO-67, and HO-68. All FM mode, V/U

[ANS thanks everyone for the above information]

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SB SAT @ AMSAT $ANS-254.09
ARISS Status - 5 September 2011

AMSAT News Service Bulletin 254.09
From AMSAT HQ SILVER SPRING, MD.
September 11, 2011
To All RADIO AMATEURS
BID: $ANS-254.09

1. Vision Australia Contact Successful

Students from Vision Australia in Enfield, New South Wales, Austra-
lia took part in an Amateur Radio on the International Space Station
(ARISS) contact on Monday, August 29 via station WH6PN in Hawaii. On-
orbit Astronaut Mike Fossum, KF5AQG answered 12 questions put to him
by the youth before the ISS went over the horizon. Students were in-
terested in the logistics of living in space as well as how astronauts
stay in contact with friends and family during their missions. Vision
Australia is a nonprofit agency that provides low vision and blindness
services to the community in Australia.

2. Merritt Island Students Speak with Satoshi Furukawa

On Tuesday, August 30, an Amateur Radio on the International Space
Station (ARISS) contact was held between da Vinci Academy of Aero-
space Technology students at Merritt Island High School in Florida
and Astronaut Satoshi Furukawa, KE5DAW on the ISS. Questions asked
included those concerning the long term effects of microgravity on
the human body and influences on Furukawa's decision to study in the
fields of STEM (Science, Technology, Engineering and Math). Florida
Today ran a story on the event:
http://www.floridatoday.com/apps/pbcs.dll/article?AID=2011108310317

3. EE Times, ARISSat Blog

Another entry has been posted to the EE (Electronic Engineering) Times
"Chips in Space" blog about amateur radio satellite ARISSat-1. This
week the blog covers the "Design challenges, intrigue and solutions"
of the project. See:
http://www.eetimes.com/electronics-blogs/other/4219588/Chips-in-Space--Desig
n-challenges--intrigue-and-solutions

[ANS thanks Carol, KB3LKI, for the above information]

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In addition to regular membership, AMSAT offers membership in the

President's
Club. Members of the President's Club, as sustaining donors to AMSAT Project
Funds, will be eligible to receive additional benefits. Application forms
are
available from the AMSAT Office.

73,
This week's ANS Editor,
Lee McLamb, KU4OS